

ABSTRACT

A gait generating system for a mobile robot determines a gait parameter that defines a gait of a mobile robot 1 to be generated by updating a value of a priority parameter of the gait parameter such that it approaches in steps to an original required value from a value of a priority gait parameter of a predetermined base gait parameter until it agrees with the original required value. Each time the value is updated, a search object parameter among non-priority parameters other than the priority parameter is determined in an exploratory manner such that a boundary condition of a gait is satisfied on a dynamic model of the robot 1, and a gait parameter that includes the determined search object parameter and the updated priority parameter is newly determined. The gait of the mobile robot 1 is generated using a gait parameter newly determined when the priority parameter is finally made to agree with the required value, and the dynamic model.